STN
(HCAPLUS, INSPEC, JAPIO, USPATFULL)
6/8/2006

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     (FILE 'HOME' ENTERED AT 00:02:19 ON 08 JUN 2006)

     FILE 'HCAPLUS, INSPEC, JAPIO, USPATFULL, USPAT2' ENTERED AT 00:06:15 ON
     08 JUN 2006
L1         42588 S (CZ OR CZOCHRALSKI)
L2        137810 S (PHOSPHORUS OR P)(8A)(DOP?)
L3         64195 S (N(W)TYPE)(8A)(SI OR SILICON)
L4        525169 S (SINGLE OR MONO)(8A)(CRYSTAL?)
L5        449553 S (WAFER#)
L6         56404 S (DOP?)(8A)(AL OR ALUMINIUM OR ALUMINUM)
L7       3545513 S (AL OR ALUMINUM OR ALUMINIUM)
L8          1570 S (ATOMS(W)CC)

=> s l1 and l2 and l3 and l4 and l5 and l6 and l7 and l8
L9             6 L1 AND L2 AND L3 AND L4 AND L5 AND L6 AND L7 AND L8

=> d l9 1-6 abs,bib

L9   ANSWER 1 OF 6  HCAPLUS  COPYRIGHT 2006 ACS on STN
AB   A process for producing a P-doped Si single
     crystal by Czochralski method is described, which is
     characterized in that a single crystal is grown such
     that at least Al concentration is ≤ 2×10^12 atoms
     /cc.  A process for producing a P-doped Si
     single crystal including no defective region, e.g. a V
     region, an OSF region or a giant dislocation cluster (LSEPD, LFPD) region,
     and having excellent elec. characteristics of high withstand voltage
     easily and inexpensively can be provided.
AN   2004:634119  HCAPLUS
DN   141:165196
TI   Process for producing P-doped silicon
     single crystal and P-doped n
     -type silicon single crystal
     wafer
IN   Sakurada, Masahiro; Fusegawa, Izumi
PA   Shin-Etsu Handotai Co., Ltd., Japan
SO   PCT Int. Appl., 21 pp.
     CODEN: PIXXD2
DT   Patent
LA   Japanese
FAN.CNT 1
     PATENT NO.            KIND   DATE        APPLICATION NO.          DATE
     ----------            ----   --------    -----------------        --------
PI   WO 2004065666         A1     20040805    WO 2003-JP16794          20031225
         W:  CN, KR, US
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IT, LU, MC, NL, PT, RO, SE, SI, SK, TR
     JP 2004224577         A2     20040812    JP 2003-10436            20030117
     EP 1591566            A1     20051102    EP 2003-768274           20031225
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK
     US 2006065184         A1     20060330    US 2005-538878           20050614
PRAI JP 2003-10436         A      20030117
     WO 2003-JP16794       W      20031225
RE.CNT  1     THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9   ANSWER 2 OF 6  USPATFULL on STN
AB     The present invention is a method of producing a P(
       phosphorus)-doped silicon single
       crystal by Czochralski method, wherein, at least, a
       growth of the single crystal is performed so that an
       Al (aluminum) concentration is 2×10.sup.12
       atoms/cc or more. Thereby, there can be provided a
       method of easily and inexpensively producing a P(
       phosphorus)-doped silicon single
       crystal of defect-free region having an excellent capability of
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electrical characteristics to be high breakdown voltage, which contains neither, for example, V region, OSF region, nor large dislocation cluster (LSEPD, LFPD) region.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN 2006:77212 USPATFULL
TI Process for producing **p doped silicon single crystal** and **p doped n type silicon single crystal wafer**
IN Sakurada, Masahiro, Fukushima, JAPAN
Fusegawa, Izumi, Fukushima, JAPAN
PI US 2006065184 A1 20060330
AI US 2003-538878 A1 20031225 (10)
WO 2003-JP16794 20031225
20050614 PCT 371 date
PRAI JP 2003-10436 20030117
DT Utility
FS APPLICATION
LREP OLIFF & BERRIDGE, PLC, P.O. BOX 19928, ALEXANDRIA, VA, 22320, US
CLMN Number of Claims: 29
ECL Exemplary Claim: 1-9
DRWN 4 Drawing Page(s)
LN.CNT 535
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 3 OF 6 USPATFULL on STN
AB A method of making an integrated electrooptic solid state device array comprising forming a structure having a multiplicity of active, solid state electrooptic component bodies in a solid state device material, including arranging the component bodies in a geometrical pattern and forming the component bodies to a prespecified size of less than 15 microns each and to an accuracy to within a fraction of a micron, and providing at least one electronic rectifying barrier at each of the component bodies for the operation of each component body as an active solid state electrooptic component.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN 87:61798 USPATFULL
TI Method of making active solid state devices
IN Li, Chou H., 379 Elm Dr., Roslyn, NY, United States 11576
PI US 4690714 19870901
AI US 1983-462374 19830131 (6)
RLI Continuation-in-part of Ser. No. US 1979-7584, filed on 29 Jan 1979, now patented, Pat. No. US 4371406 which is a continuation of Ser. No. US 1977-764433, filed on 31 Jan 1977, now patented, Pat. No. US 4136435 which is a continuation of Ser. No. US 1973-405138, filed on 10 Oct 1973, now abandoned And Ser. No. US 1975-580414, filed on 23 May 1975, now abandoned , said Ser. No. 405138 And Ser. No. 580414 , each which is a continuation-in-part of Ser. No. US 1971-190483, filed on 19 Oct 1971, now patented, Pat. No. US 3765956 Ser. No. Ser. No. US 1973-386102, filed on 6 Aug 1973 And Ser. No. US 1969-802018, filed on 25 Feb 1969, now patented, Pat. No. US 3500135 , said Ser. No. 190483 which is a continuation-in-part of Ser. No. US 1969-868129, filed on 21 Oct 1969, now abandoned which is a continuation-in-part of Ser. No. US 1965-491718, filed on 30 Sep 1965, now abandoned , said Ser. No. 802018 which is a continuation-in-part of Ser. No. US 1965-490955, filed on 28 Sep 1965, now patented, Pat. No. US 3430109
DT Utility
FS Granted
EXNAM Primary Examiner: Ozaki, George T.
LREP Cooper, Dunham, Griffin & Moran
CLMN Number of Claims: 25
ECL Exemplary Claim: 1
DRWN 18 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 1468
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 4 OF 6 USPATFULL on STN

AB The ultra-miniaturized, active solid-state devices and circuitries have unique material bodies having signal-translating regions attached thereto for active signal translation. These regions, comprising melt-grown, or simulated melt-grown, metallurgical compounds including oxides, eutectics, and intermetallics, are of controlled compositions, concentration profiles, and electronic or other optoelectromagnetic properties. In some devices, the microstructure of the compounds comprises a plurality of microscopically thin, regularly-shaped and uniformly-spaced bodies of one phase material dispersed in a matrix of another phase material. The electronic conductivity of the bodies is substantially different from that of the matrix, and the bodies all terminate at microscopic distance from the pn junction (or other interfacial rectifying barrier region), so as to confine the signal current carries to flow mainly in only one of the phases. This achieves carriers microstreaming or microbranching effects. Described also herein are different devices including micron-size eutectic devices, dendritic devices, cellular devices, and granular devices; and their methods of manufacture. The barrier regions may be further modified by diffusion, ion implantation, selective oxidation, electrolytic etching, and surface-contouring. In addition, selected circuit elements may be embedded into these devices to achieve additional carriers movement control or to obtain special beneficial effects.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN 83:5251 USPATFULL
TI Solid-state device
IN Li, Chou H., 379 Elm Dr., Roslyn, NY, United States 11576
PI US 4371406 19830201
AI US 1979-7584 19790129 (6)
DCD 19960130
RLI Continuation of Ser. No. US 1977-764433, filed on 31 Jan 1977, now patented, Pat. No. US 4136435 which is a continuation of Ser. No. US 1973-405138, filed on 10 Oct 1973, now abandoned And Ser. No. US 1975-580414, filed on 23 May 1975, now abandoned , said Ser. No. 405138 And Ser. No. 580415 , each which is a continuation-in-part of Ser. No. US 1971-190483, filed on 19 Oct 1971, now patented, Pat. No. US 3765956 And a continuation-in-part of Ser. No. US 1973-386102, filed on 6 Aug 1973, now Defensive Publication No. And a continuation-in-part of Ser. No. US 1969-802018, filed on 25 Feb 1969, now patented, Pat. No. US 3500135 , said Ser. No. 190483 which is a continuation-in-part of Ser. No. US 1969-868129, filed on 21 Oct 1969, now abandoned which is a continuation-in-part of Ser. No. US 1965-491718, filed on 30 Sep 1965, now abandoned , said Ser. No. 802018 which is a continuation-in-part of Ser. No. US 1965-490955, filed on 28 Sep 1965, now patented, Pat. No. US 3430109
DT Utility
FS Granted
EXNAM Primary Examiner: Ozaki, G.
CLMN Number of Claims: 26
ECL Exemplary Claim: 1
DRWN 18 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 1309
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 5 OF 6 USPATFULL on STN
AB The ultra-miniaturized, active solid-state devices and circuitries have unique material bodies having signal-translating regions attached thereto for active signal translation. These regions, comprising melt-grown, or simulated melt-grown, metallurgical compounds including oxides, eutectics, and intermetallics, are of controlled compositions, concentration profiles, and electronic or other optoelectromagnetic properties. In some devices, the microstructure of the compounds comprises a plurality of microscopically thin, regularly-shaped and uniformly-spaced bodies of one phase material dispersed in a matrix of another phase material. The electronic conductivity of the bodies is substantially different from that of the matrix, and the bodies all terminate at microscopic distance from the pn junction (or other interfacial rectifying barrier region), so as to confine the signal current carriers to flow mainly in only one of the phases. This achieves

carriers microstreaming or microbranching effects. Described also herein are different devices including micron-size eutectic devices, dendritic devices, cellular devices, and granular devices; and their methods of manufacture. The barrier regions may be further modified by diffusion, ion implantation, selective oxidation, electrolytic etching, and surface-contouring. In addition, selected circuit elements may be embedded into these devices to achieve additional carriers movement control or to obtain special beneficial effects.

This is a continuation of my pending applications Ser. Nos. 405,138 and 580,414, filed Oct. 10, 1973 and May 23, 1975, respectively, Both of which are continuations-in-part of applications Ser. Nos. 190,483, 386,102, and 802,018, filed Oct. 19, 1971, Aug. 6, 1973, and Feb. 25, 1969, respectively. The 190,483 application is a continuation-in-part of application Ser. Number 868,129 filed Oct. 21, 1969 which, in turn, is a continuation-in-part of application Ser. Number 491,718 filed Sept. 30, 1965. The 802,018 application is a continuation-in-part of application Ser. Number 490,955 filed Sept. 28, 1965. The 405,138, 868,129, and 491,718 applications are now abandoned while the 190,483, 802,018, and 490,955 applications have since matured into U.S. Pat. Nos. 3,765,956, 3,500,135, and 3,430,109, respectively. I hereby incorporate all these related applications by reference.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN 79:4825 USPATFULL
TI Method for making solid-state device
IN Li, Chou H., 379 Elm Dr., Roslyn, NY, United States 11576
PI US 4136435 19790130
AI US 1977-764433 19770131 (5)
DT Utility
FS Granted
EXNAM Primary Examiner: Ozaki, G.
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN 18 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 1310
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 6 OF 6 USPATFULL on STN
AB The ultra-miniaturized, active solid-state devices and circuitries have unique material bodies having signal-translating regions attached thereto for active signal translation. These regions, comprising melt-grown, or simulated melt-grown, metallurgical compounds including oxides, eutectics, and intermetallics, are of controlled compositions, concentration profiles, and electronic or other optoelectromagnetic properties. In some devices, the microstructure of the compounds comprises a plurality of microscopically thin, regularly-shaped and uniformly-spaced bodies of one phase material dispersed in a matrix of another phase material. The electronic conductivities of the bodies are substantially different from that of the matrix, and the bodies all terminate at microscopic distance from the pn junction (or other interfacial rectifying barrier region), so as to confine the signal current carriers to flow mainly in only one of the phases. This achieves carriers microstreaming or microbranching effects. Described also herein are different devices including micron-size eutectic devices, dendritic devices, cellular devices, and granular devices; and their methods of manufacture. The barrier regions may be further modified by diffusion, ion implantation, selective oxidation, electrolytic etching, and surface-contouring. In addition, selected circuit elements may be embedded into these devices to achieve additional carriers movement control or to obtain special beneficial effects.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN 73:47845 USPATFULL
TI SOLID-STATE DEVICE
IN Li, Chou H., 379 Elm Dr., Roslyn, NY, United States 11576
PI US 3765956 19731016
AI US 1971-190483 19711019 (5)
RLI Continuation-in-part of Ser. No. US 1969-868129, filed on 21 Oct 1969,

now abandoned And Ser. No. US 1969-802018, filed on 25 Feb 1969, now patented, Pat. No. US 3500135
DT Utility
FS Granted
EXNAM Primary Examiner: Rutledge, L. Dewayne; Assistant Examiner: Davis, J. M.
CLMN Number of Claims: 27
DRWN 12 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 1368
CAS INDEXING IS AVAILABLE FOR THIS PATENT

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